Roadside Features Inventory Program

2009 Annual Data Collection Performance Measures Report

Roadside Features Inventory Program description:

The Roadside Feature Inventory Program (RFIP) is a system wide agency program of limited scope for collecting, storing and reporting locations of roadside assets for the main purpose of safety analysis. RFIP data is also available for preliminary design analysis. This program was designed to collect a limited set of fixed objects at mapping level accuracy (+/-5ft). If more detailed and accurate design quality data is desired, a survey crew should be used. The RFIP database is a integral part of the culvert inspection program and the Stormwater Information Management Project (SWIM).

The RFIP vision:

A statewide program that helps the agency more efficiently manage assets, improve safety and deliver projects by using the latest technology to locate, inventory and report roadside features.

Goals and purpose:

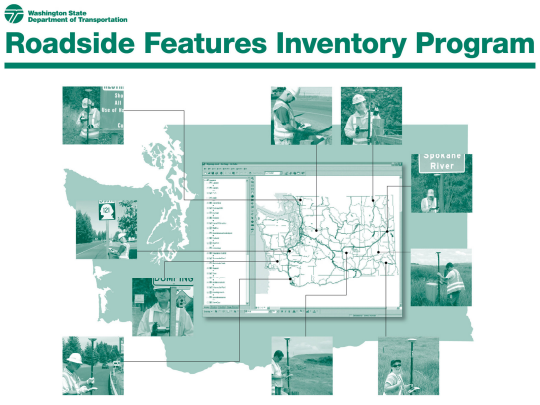
- To meet a stewardship commitment with the Federal Highway Administration (FHWA) to collect and store roadside object information for system wide safety analysis and program development
- To create a mapping level accuracy corporate database where analysis can be done to compare the severity of “vehicles leaving roadway” road accidents to density of fixed objects
- To provide information on the number, types, and locations of fixed object type roadside features
- Enhance future safety investment decisions

Realized benefits:

- Established consistent data definitions and formats throughout the department
- Established collection and storage methods and procedures
- Minimized the cost of collection and maintenance of roadside feature data by eliminating redundant data collection efforts
- Facilitated the linking of RFIP data with other data bases (Culvert and SWIM) that store agency specific information about roadside features
- Increased the efficiency of project development through more efficient data collection and reporting
- Provided Program Management with better information for program prioritization

How is the RFIP structured?

Project and Technical Teams, with representation from the Washington State Department of Transportation (WSDOT) many business areas, provided expertise during the programs design and development. These teams were/are managed from the Transportation Data Office (TDO) with oversight from a Statewide Advisory Committee. Data collection is managed by each region with oversight from the TDO. Data validation and storage is overseen by a Data Steward within the TDO. Data output and reporting will be done with Geographic Information System (GIS) based maps and tabular reports.

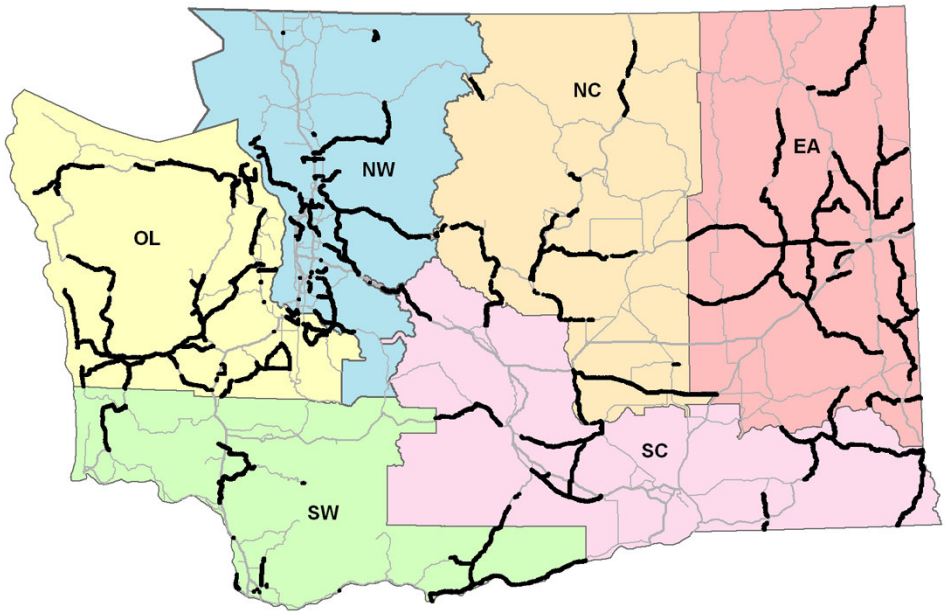


How does data collection locations get prioritized?

- At the start of the program, rural areas were selected for safety reasons and to allow the field crews time to learn the new program
- Later, areas of high numbers of collisions with fixed objects were the collection focus and were selected and prioritized by each Region
- Recently, direction has been received to prioritize the RFIP efforts to help with data collection efficiencies for the highway preservation projects funded with the American Recovery and Reinvestment Act (ARRA) and State Stimulus funds

What data has been gathered?

- From June 2006 thru March 2009 over 308,000 features were collected. 2224 state route miles have been completed. March 31st, 2009 was the last date we had full and complete data when we started to compile this report
- Over 63,000 supplemental still images have been collected
- A total of 2224 route miles have been collected as of March 31st, 2009. This represents 31.6% of the state route system of 7042 miles. The full breakdown of the data collected is in the following tables and graphs



Map of RFIP data gathered statewide since June '06

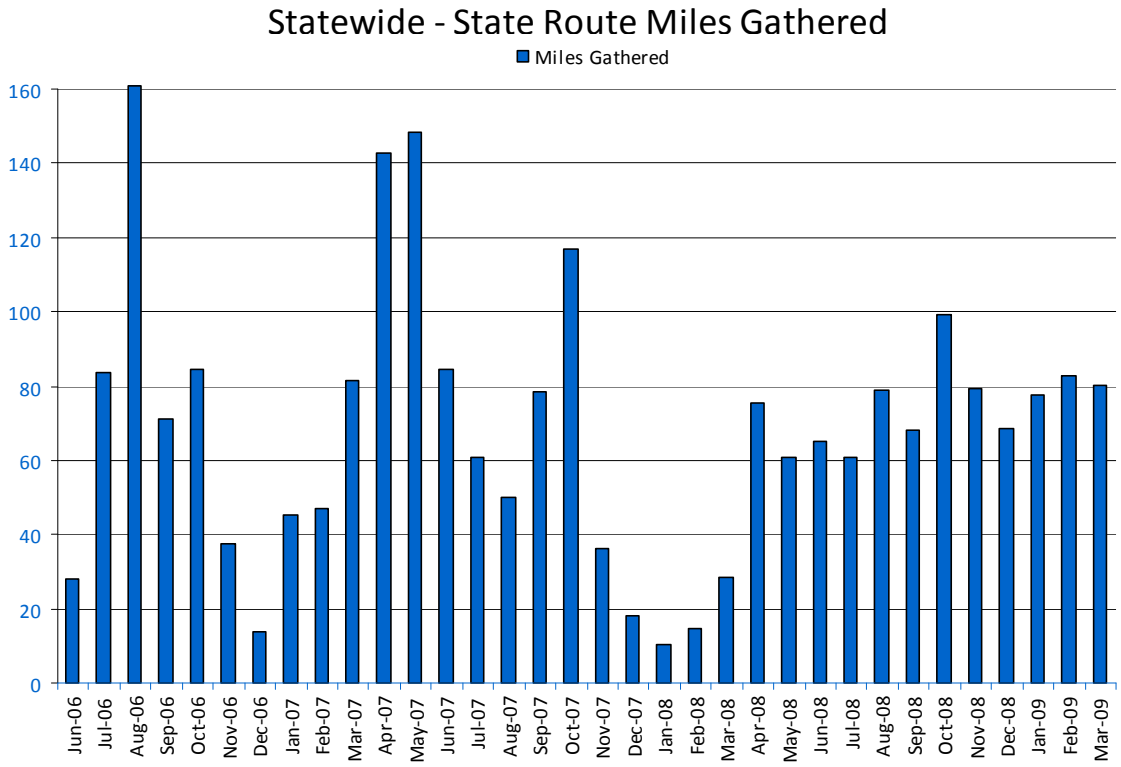
State Route Miles Completed				
	Total Route Miles	Route Miles Completed	% Complete	% Remaining
Northwest	1178.30	257.47	21.9%	78.1%
South Central	1067.72	284.09	26.6%	73.4%
Olympic	1103.83	543.24	49.2%	50.8%
North Central	1140.82	294.63	25.8%	74.2%
Southwest	984.61	203.30	20.6%	79.4%
Eastern	1566.84	641.01	40.9%	59.1%
Statewide	7042.12	2223.74	31.6%	68.4%

What is the estimated time when the entire state route system would be collected?

Each Region has been responsible for managing their data collection efforts. Weather, workloads, etc. will always affected field data collection rates.

The number of features per state route mile vary greatly in urban and rural areas. The focus of the RFIP program is to complete data collection on the entire highway system. With this in mind, "State Route Miles Gathered" per month is our focus.

However, further down in this document is a graph on "Statewide Features Gathered" per month to help document the differences between urban vs. rural data collection.

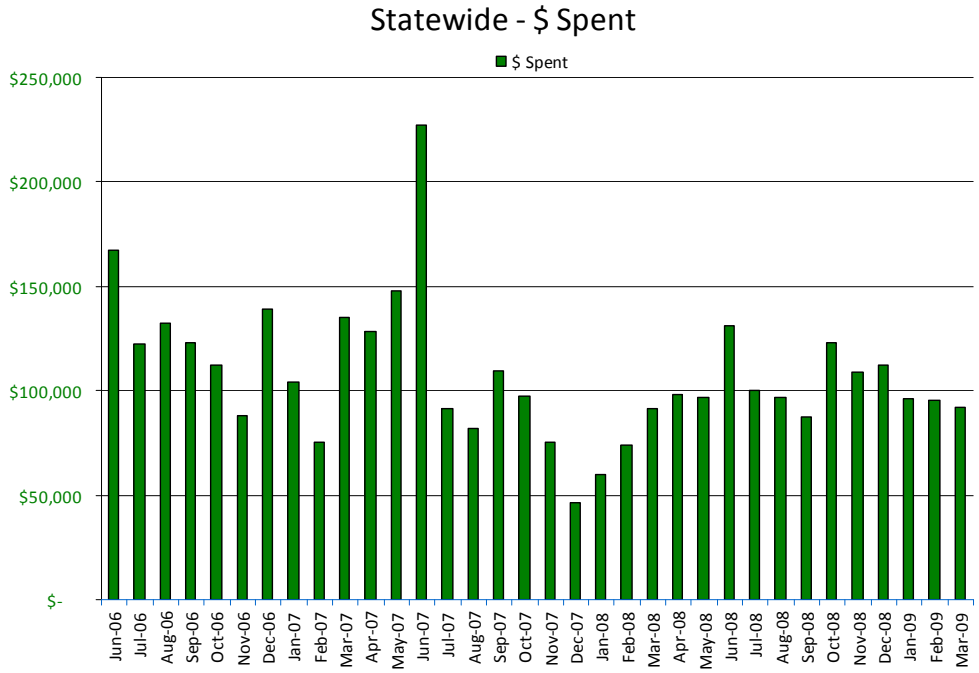


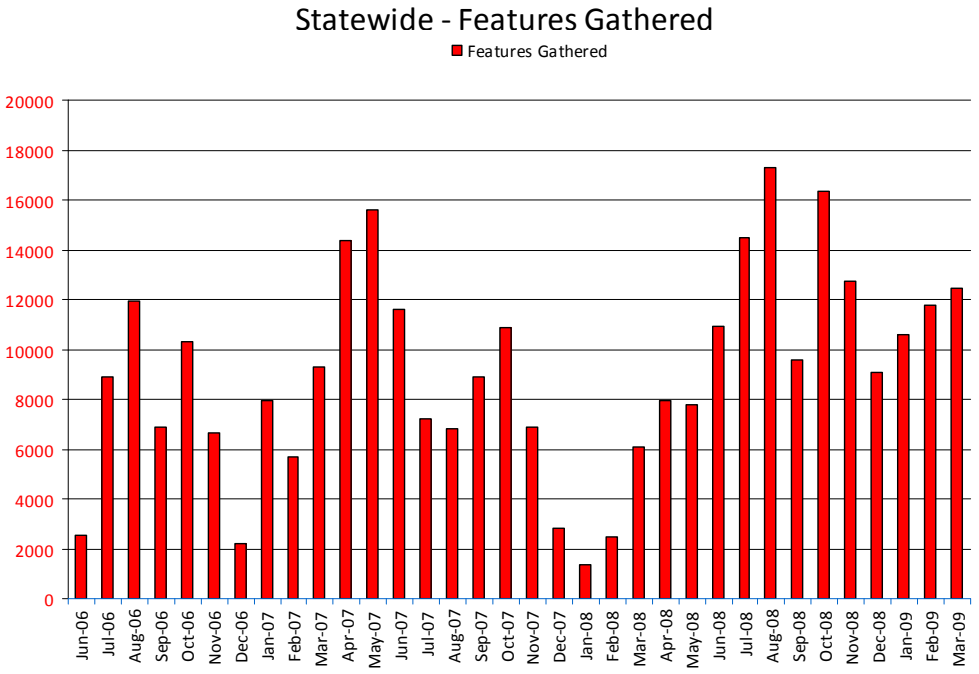
Time To Completion Estimate						
	Total Route Miles	Route Miles Completed	Months Since Collection Started	Route Miles Per Month Average	Estimated Months to Completion	Estimated Date of Completion
Northwest	1178.30	257.47	10 [1]	25.75	36	Mar-2012
South Central	1067.72	284.09	33	8.61	91	Oct-2016
Olympic	1103.83	543.24	34	15.98	35	Feb-2012
North Central	1140.82	294.63	33	8.93	95	Feb-2017
Southwest	984.61	203.30	34	5.98	131	Feb-2019
Eastern	1566.84	641.01	34	18.85	49	Mar-2013
Statewide	7042.12	2223.74	34	65.40	74	May-2015 [2]

[1] Northwest Region started RFIP data collection in June 2008

[2] Statewide Estimated Date of Completion is based on statewide route miles completed and not regional averages

The following 2 graphs show the $ spent and the number of roadside features collected broken down by month.





How can I find out more detailed Regional data collection information?

This document has an appendix that has the following detailed Regional information:
Route miles gathered vs. FTE's used; features gathered vs. FTE's used; route miles gathered vs. $ spent; features gathered vs. $ spent; total route miles vs. route miles gathered.